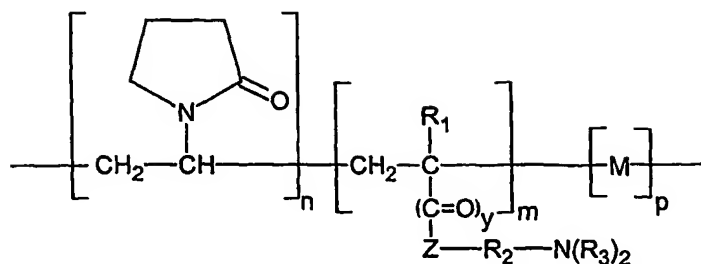


Claims:

- 5 1. A composition comprising
- (a) at least one organic acid;
 - (b) optionally, at least one anionic surfactant;
 - (c) at least one polymer capable of forming a complex with (a) at least one of
 - 10 organic acid;
 - (d) optionally, at least one organic solvent;
 - (e) optionally, at least one propellant;
 - (f) water; and
- optionally, one or more further conventional constituents such as: pH buffering agents,
- 15 perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further germicides, fungicides, anti-oxidants, and anti-corrosion agents.
2. The composition according to claim 1 wherein the at least one organic acid is selected from a compound having the formula:
- 20 $R-COOH$
- wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl; dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl; substituted phenyl and mixtures thereof, wherein substituted lower alkyl is substituted by one or
- 25 more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano.
3. The composition according to claim 2 wherein the organic acid is selected from the group citric, malic, succinic, lactic, glycolic, fumaric, tartaric, and formic acids and mixtures thereof.
- 30
4. The composition according to any one of claims 1 to 3 wherein the at least one polymer is selected from the group
- (1) polymer having the formula



in which n represents from 20 to 99 and preferably from 40 to 90 mol %, m represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50 mol, ($n+m+p=100$); R_1 represents H or CH_3 ; y represents 0 or 1; Z is selected from O or NH; R_2 represents C_xH_{2x} where x is 2 to 18; each of R_3 independently represents hydrogen or C_1 to C_4 alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in [],

(2) vinylpyrrolidone/vinyl acetate copolymer,

(3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate,

(4) poly (vinyl pyrrolidone);

(5) vinyl pyrrolidone/vinyl caprolactam copolymer

(6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and

(7) a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula $\text{R}^1-\text{CH}=\text{CH}-\text{R}^2$ and wherein Monomer B is of the formula $\text{R}^3-\text{C}(\text{R}^1)=\text{C}(\text{R}^2)-\text{R}^4$,

wherein R^1 and R^2 are independently selected from hydrogen; hydroxy; halogen; carboxy; sulfo; phenyl; phenoxy; C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} aminoalkyl, C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine; C_{1-6} alkylphenyl; amino and C_{1-6} alkylamino, R^3 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given

hereinbefore for R¹, R² or R³, with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound.

- 5
5. The composition according to claim 4 wherein the polymer is (1).
6. The composition according to claim 5 wherein p is 0.
7. The composition according to claims 5 or 6 wherein y is 1.
- 10 8. The composition according to claims 5 to 7 wherein x is 2.
9. The composition according to claims 5 to 8 wherein each of R₃ is methyl.
10. The composition according to claim 4 wherein the polymer is (2).
- 15 11. The composition according to claim 4 wherein the polymer is (3).
12. The composition according to claim 11 wherein the ammonium derivative is dialkylamino alkyl methacrylate.
- 20 13. The composition according to claim 4 wherein the polymer is (4).
14. The composition according to claim 4 wherein the polymer is (5).
- 25 15. The composition according to claim 4 wherein the polymer is (6).
16. The composition according to claim 15 wherein the polymer is a vinyl pyrrolidone/acrylic acid copolymer.
- 30 17. The composition according to claim 4 wherein the polymer is (7).
18. The composition according to claim 17 wherein Monomer A is selected from C₁₋₆ alkyl vinyl ethers and C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.

19. The composition according to claim 18 wherein Monomer A is C₁₋₆ alkyl vinyl ethers.
20. The composition according to claim 19 wherein the C₁₋₆ alkyl vinyl ethers are selected from vinyl methyl ether, vinyl ethyl ether, vinyl propyl ether, vinyl isopropyl ether, vinyl n-butyl ether, vinyl isobutyl ether, vinyl n-amyl ether, and vinyl n-hexyl.
21. The composition according to claim 18 wherein Monomer A is selected from C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.
22. The composition according to claim 21 wherein the C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers selected from methoxyethyl vinyl ether, ethoxyethyl vinyl ether, propoxyethyl vinyl ether, butoxyethyl vinyl ether, methoxyethoxyethyl vinyl ether, ethoxyethoxyethyl vinyl ether, and butoxyethoxyethyl vinyl ether.
23. The composition according to claim 18 wherein Monomer B is maleic acid or derivative thereof.
24. The composition according to claim 23 wherein the copolymer is vinyl methyl ether/maleic acid alkyl half ester wherein alkyl is C₁₋₆ alkyl.
25. The composition according to any one of claims 1 to 24 wherein the (a) organic acid is present in an amount of from about 0.01 to about 10%wt.
26. The composition according to claim 25 wherein the (a) organic acid is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.
27. The composition according to any one of claims 1 to 24 wherein (c) polymer is present in an amount of from about 0.01 to about 10%wt.
28. The composition according to claim 27 wherein (c) polymer is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.
29. The composition according to any one of claims 1 to 28 wherein (b) at least one anionic surfactant is present.

30. The composition according to any one of claims 1 to 29 wherein the at least one anionic surfactant is selected from alcohol sulfates and sulfonates, alcohol phosphates and phosphonates, alkyl ester sulfates, alkyl diphenyl ether sulfonates, alkyl sulfates, alkyl ether sulfates, sulfate esters of an alkylphenoxy polyoxyethylene ethanol, alkyl monoglyceride sulfates, alkyl sulfonates, alkyl ether sulfates, alpha-olefin sulfonates, beta-alkoxy alkane sulfonates, alkyl ether sulfates, ethoxylated alkyl sulfonates, alkylaryl sulfonates, alkylaryl sulfates, alkyl monoglyceride sulfates, alkyl carboxylates, alkyl ether carboxylates, alkyl alkoxy carboxylates having 1 to 5 moles of ethylene oxide, alkylpolyglycoethersulfates (containing up to 10 moles of ethylene oxide), sulfosuccinates, octoxynol or nonoxynol phosphates, taurates, fatty taurides, fatty acid amide polyoxyethylene sulfates, acyl glycerol sulfonates, fatty oleyl glycerol sulfates, alkyl phenol ethylene oxide ether sulfates, paraffin sulfonates, alkyl phosphates, isethionates, N-acyl taurates, alkyl succinamates and sulfosuccinates, alkylpolysaccharide sulfates, alkylpolyglucoside sulfates, alkyl polyethoxy carboxylates, and sarcosinates or mixtures thereof.

31. The composition according to any one of claims 1 to 30 wherein the anionic surfactant is selected from alcohol sulfates and sulfonates, alkyl sulfates, alkylaryl sulfates, alkyl sulfonates, and alkylaryl sulfonates.

20

32. The composition according to any one of claims 1 to 31 wherein (b) anionic surfactant is present in an amount of from about 0.01 to about 10%wt.

33. The composition according to claim 32 wherein (b) anionic surfactant is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.

25

34. The composition according to any one of claims 1 to 24 and 29 to 31 wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 6:2:1.

35. The composition according to claim 34 wherein the ratio (a):(b):(c) ranges from about 1:1:1 to about 4:2:1.

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36. The composition according to claim 35 wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 2:2:1.

37. The composition according to any one of claims 1 to 28 wherein (b) at least one anionic surfactant is not present.

5 38. The composition according to any one of claims 1 to 37 wherein at least one organic solvent is present.

39. A composition comprising

10 (a) at least one organic acid selected from a compound having the formula:



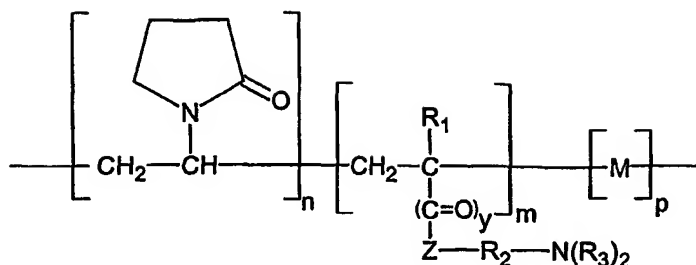
wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl; dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl;

15 substituted phenyl and mixtures thereof, wherein substituted lower alkyl is substituted by one or more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano;

(b) optionally, at least one anionic surfactant selected from alcohol sulfates and sulfonates, alcohol phosphates and phosphonates, alkyl ester sulfates, alkyl diphenyl ether sulfonates, alkyl sulfates, alkyl ether sulfates, sulfate esters of an alkylphenoxy polyoxyethylene ethanol, alkyl monoglyceride sulfates, alkyl sulfonates, alkyl ether sulfates, alpha-olefin sulfonates, beta-alkoxy alkane sulfonates, alkyl ether sulfonates, ethoxylated alkyl sulfonates, alkylaryl sulfonates, alkylaryl sulfates, alkyl monoglyceride sulfonates, alkyl carboxylates, alkyl ether carboxylates, alkyl alkoxy carboxylates having 1 to 5 moles of ethylene oxide, alkylpolyglycolethersulfates (containing up to 10 moles of ethylene oxide), sulfosuccinates, octoxynol or nonoxynol phosphates, taurates, fatty taurides, fatty acid amide polyoxyethylene sulfates, acyl glycerol sulfonates, fatty oleyl glycerol sulfates, alkyl phenol ethylene oxide ether sulfates, paraffin sulfonates, alkyl phosphates, isethionates, N-acyl taurates, alkyl succinamates and sulfosuccinates, alkylpolysaccharide sulfates, alkylpolyglucoside sulfates, alkyl polyethoxy carboxylates, and sarcosinates or mixtures thereof;

30 (c) at least one polymer capable of forming a complex with (a) at least one of organic acid selected from the group

(1) polymer having the formula



in which n represents from 20 to 99 and preferably from 40 to 90 mol %, m represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50 mol, ($n+m+p=100$); R_1 represents H or CH_3 ; y represents 0 or 1; Z is selected from O or NH; R_2 represents C_xH_{2x} where x is 2 to 18; each of R_3 independently represents hydrogen or C_1 to C_4 alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in []_m,

(2) vinylpyrrolidone/vinyl acetate copolymer,

(3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate,

(4) poly (vinyl pyrrolidone),

(5) vinyl pyrrolidone/vinyl caprolactam copolymer,

(6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and

(7) a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula $R^1-CH=CH-R^2$ and wherein Monomer B is of the formula $R^3-C(R^1)=C(R^2)-R^4$,

wherein R^1 and R^2 are independently selected from hydrogen; hydroxy; halogen; carboxy; sulfo; phenyl; phenoxy; C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} aminoalkyl, C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine; C_{1-6} alkylphenyl; amino and C_{1-6} alkylamino, R^3 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given hereinbefore for R^1 , R^2 or R^3 , with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound;

(d) optionally, at least one organic solvent;

(e) optionally, at least one propellant;

(f) water; and

optionally, one or more further conventional constituents such as: pH buffering agents, perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further
5 germicides, fungicides, anti-oxidants, and anti-corrosion agents.

40. The composition according to claim 39 wherein the polymer is (1).

41. The composition according to claim 40 wherein p is 0.

10

42. The composition according to claims 40 or 41 wherein y is 1.

43. The composition according to claims 40 to 42 wherein x is 2.

15 44. The composition according to claims 40 to 43 wherein each of R_3 is methyl.

45. The composition according to claim 39 wherein the polymer is (2).

46. The composition according to claim 39 wherein the polymer is (3).

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47. The composition according to claim 46 wherein the ammonium derivative is dialkylamino alkyl methacrylate.

48. The composition according to claim 39 wherein the polymer is (4).

25

49. The composition according to claim 39 wherein the polymer is (5).

50. The composition according to claim 29 wherein the polymer is (6).

30 51. The composition according to claim 50 wherein the polymer is a vinyl pyrrolidone/acrylic acid copolymer.

52. The composition according to claim 29 wherein the polymer is (7).

53. The composition according to claim 52 wherein Monomer A is selected from C₁₋₆ alkyl vinyl ethers and C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.

54. The composition according to claim 53 wherein Monomer A is C₁₋₆ alkyl vinyl ethers.

5

55. The composition according to claim 54 wherein the C₁₋₆ alkyl vinyl ethers are selected from vinyl methyl ether, vinyl ethyl ether, vinyl propyl ether, vinyl isopropyl ether, vinyl n-butyl ether, vinyl isobutyl ether, vinyl n-amyl ether, and vinyl n-hexyl.

10 56. The composition according to claim 53 wherein Monomer A is selected from C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.

57. The composition according to claim 56 wherein the C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers selected from methoxyethyl vinyl ether, ethoxyethyl vinyl ether, propoxyethyl vinyl ether, 15 butoxyethyl vinyl ether, methoxyethoxyethyl vinyl ether, ethoxyethoxyethyl vinyl ether, and butoxyethoxyethyl vinyl ether.

58. The composition according to claim 53 wherein Monomer B is maleic acid or derivative thereof.

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59. The composition according to claim 58 wherein the copolymer is vinyl methyl ether/maleic acid alkyl half ester wherein alkyl is C₁₋₆ alkyl.

60. The composition according to any one of claims 39 to 59 wherein (c) polymer is present 25 in an amount of from about 0.01 to about 10%wt.

61. The composition according to claim 60 wherein (c) polymer is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.

30 62. The composition according to any one of claims 39 to 61 wherein the (a) organic acid is present in an amount of from about 0.01 to about 10%wt.

63. The composition according to claim 62 wherein the (a) organic acid is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.

64 The composition according to any one of claims 39 to 63 wherein (b) at least one anionic surfactant is present.

5 65. The composition according to claim 64 wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 6:2:1.

66. The composition according to claim 65 wherein the ratio (a):(b):(c) ranges from about 1:1:1 to about 4:2:1.

10

67. The composition according to claim 66 wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 2:2:1.

68. The composition according to any one of claims 39 to 64 wherein (b) anionic surfactant is present in an amount of from about 0.01 to about 10%wt.

15

69. The composition according to claim 68 wherein (b) anionic surfactant is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.

20 70. The composition according to any one of claims 39 to 63 wherein (b) at least one anionic surfactant is not present.

71. The composition according to any one of claims 39 to 70 wherein at least one organic solvent is present.

25

72. A composition comprising

(a) from about 0.01 to about 10%wt of at least one organic acid;

(b) optionally, from about 0.01 to about 10%wt of at least one anionic surfactant;

30

(c) from about 0.01 to about 10%wt of at least one polymer capable of forming a complex with (a) at least one of organic acid;

(d) optionally, at least one organic solvent;

(e) optionally, at least one propellant;

(f) water; and

optionally, one or more further conventional constituents such as: pH buffering agents, perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further germicides, fungicides, anti-oxidants, and anti-corrosion agents.

- 5 73. The composition according to claim 72 wherein the at least one organic acid is selected from a compound having the formula:

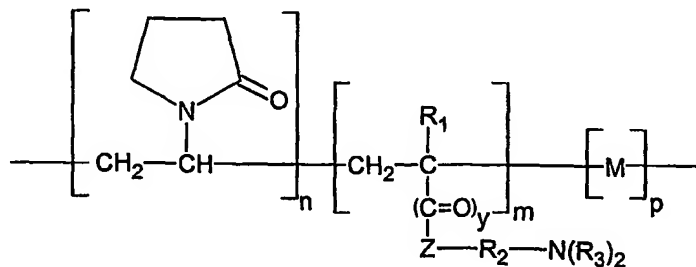


- wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl;
 10 dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl; substituted phenyl and mixtures thereof, wherein substituted lower alkyl is substituted by one or more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano.

74. The composition according to claim 73 wherein the organic acid is selected from the
 15 group citric, malic, succinic, lactic, glycolic, fumaric, tartaric, and formic acids and mixtures thereof.

75. The composition according to any one of claims 72 to 74 wherein the at least one
 20 polymer is selected from the group

- (1) polymer having the formula



25 in which n represents from 20 to 99 and preferably from 40 to 90 mol %, m represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50 mol, (n+m+p=100); R₁ represents H or CH₃; y represents 0 or 1; Z is selected

from O or NH; R_2 represents C_xH_{2x} where x is 2 to 18; each of R_3 independently represents hydrogen or C_1 to C_4 alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in [],

(2) vinylpyrrolidone/vinyl acetate copolymer,

(3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate,

(4) poly (vinyl pyrrolidone);

(5) vinyl pyrrolidone/vinyl caprolactam copolymer

(6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and

(7) a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula $R^1-CH=CH-R^2$ and wherein Monomer B is of the formula $R^3-C(R^1)=C(R^2)-R^4$,

wherein R^1 and R^2 are independently selected from hydrogen; hydroxy; halogen; carboxy; sulfo; phenyl; phenoxy; C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} aminoalkyl, C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine; C_{1-6} alkylphenyl; amino and C_{1-6} alkylamino, R^3 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given hereinbefore for R^1 , R^2 or R^3 , with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound.

76. The composition according to claim 75 wherein the polymer is (1).

77. The composition according to claim 76 wherein p is 0.

78. The composition according to claims 76 or 77 wherein y is 1.

79. The composition according to claims 76 to 78 wherein x is 2.

80. The composition according to claims 76 to 79 wherein each of R_3 is methyl.

81. The composition according to claim 75 wherein the polymer is (2).

82. The composition according to claim 75 wherein the polymer is (3).

83. The composition according to claim 72 wherein the ammonium derivative is dialkylamino
5 alkyl methacrylate.

84. The composition according to claim 75 wherein the polymer is (4).

85. The composition according to claim 75 wherein the polymer is (5).
10

86. The composition according to claim 75 wherein the polymer is (6).

87. The composition according to claim 86 wherein the polymer is a vinyl pyrrolidone/acrylic
acid copolymer.
15

88. The composition according to claim 75 wherein the polymer is (7).

89. The composition according to claim 88 wherein Monomer A is selected from C₁₋₈ alkyl
vinyl ethers and C₁₋₈ alkoxy C₁₋₈ alkyl vinyl ethers.
20

90. The composition according to claim 89 wherein Monomer A is C₁₋₈ alkyl vinyl ethers.

91. The composition according to claim 90 wherein the C₁₋₈ alkyl vinyl ethers are selected
from vinyl methyl ether, vinyl ethyl ether, vinyl propyl ether, vinyl isopropyl ether, vinyl n-butyl
25 ether, vinyl isobutyl ether, vinyl n-amyl ether, and vinyl n-hexyl.

92. The composition according to claim 89 wherein Monomer A is selected from C₁₋₈ alkoxy
C₁₋₈ alkyl vinyl ethers.

30 93. The composition according to claim 92 wherein the C₁₋₈ alkoxy C₁₋₈ alkyl vinyl ethers
selected from methoxyethyl vinyl ether, ethoxyethyl vinyl ether, propoxyethyl vinyl ether,
butoxyethyl vinyl ether, methoxyethoxyethyl vinyl ether, ethoxyethoxyethyl vinyl ether, and
butoxyethoxyethyl vinyl ether.

94. The composition according to claim 89 wherein Monomer B is maleic acid or derivative thereof.

95. The composition according to claim 94 wherein the copolymer is vinyl methyl
5 ether/maleic acid alkyl half ester wherein alkyl is C₁₋₆ alkyl.

96. The composition according to any one of claims 72 to 95 wherein (b) from about 0.01 to about 10%wt of at least one anionic surfactant is present.

10 97. The composition according to any one of claims 72 to 96 wherein the at least one anionic surfactant is selected from alcohol sulfates and sulfonates, alcohol phosphates and phosphonates, alkyl ester sulfates, alkyl diphenyl ether sulfonates, alkyl sulfates, alkyl ether sulfates, sulfate esters of an alkylphenoxy polyoxyethylene ethanol, alkyl monoglyceride sulfates, alkyl sulfonates, alkyl ether sulfates, alpha-olefin sulfonates, beta-alkoxy alkane
15 sulfonates, alkyl ether sulfonates, ethoxylated alkyl sulfonates, alkylaryl sulfonates, alkylaryl sulfates, alkyl monoglyceride sulfonates, alkyl carboxylates, alkyl ether carboxylates, alkyl alkoxy carboxylates having 1 to 5 moles of ethylene oxide, alkylpolyglycolethersulfates (containing up to 10 moles of ethylene oxide), sulfosuccinates, octoxynol or nonoxynol phosphates, taurates, fatty taurides, fatty acid amide polyoxyethylene sulfates, acyl glycerol
20 sulfonates, fatty oleyl glycerol sulfates, alkyl phenol ethylene oxide ether sulfates, paraffin sulfonates, alkyl phosphates, isethionates, N-acyl taurates, alkyl succinamates and sulfosuccinates, alkylpolysaccharide sulfates, alkylpolyglucoside sulfates, alkyl polyethoxy carboxylates, and sarcosinates or mixtures thereof.

25 98. The composition according to claim 97 wherein the anionic surfactant is selected from alcohol sulfates and sulfonates, alkyl sulfates, alkylaryl sulfates, alkyl sulfonates, and alkylaryl sulfonates.

99. A composition comprising

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- (a) at least one organic acid;
- (b) at least one anionic surfactant;
- (c) at least one polymer capable of forming a complex with (a) at least one of organic acid;

- (d) optionally, at least one organic solvent;
- (e) optionally, at least one propellant;
- (f) water; and

optionally, one or more further conventional constituents such as: pH buffering agents,
 5 perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further
 germicides, fungicides, anti-oxidants, and anti-corrosion agents.

100. The composition according to claim 99 wherein the at least one organic acid is selected
 from a compound having the formula:

10 $R-COOH$

wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower
 alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl;
 dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl;
 substituted phenyl and mixtures thereof, wherein substituted lower alkyl is substituted by one or
 15 more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano.

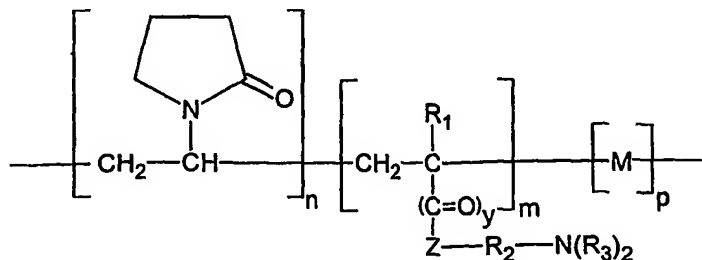
101. The composition according to claim 100 wherein the organic acid is selected from the
 group citric, malic, succinic, lactic, glycolic, fumaric, tartaric, and formic acids and mixtures
 thereof.

20

102. The composition according to any one of claims 99 to 101 wherein the at least one
 polymer is selected from the group

- (1) polymer having the formula

25



in which n represents from 20 to 99 and preferably from 40 to 90 mol %, m
 represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50

mol, ($n+m+p=100$); R_1 represents H or CH_3 ; y represents 0 or 1; Z is selected from O or NH; R_2 represents C_xH_{2x} where x is 2 to 18; each of R_3 independently represents hydrogen or C_1 to C_4 alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in [],

(2) vinylpyrrolidone/vinyl acetate copolymer,

(3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate,

(4) poly (vinyl pyrrolidone);

(5) vinyl pyrrolidone/vinyl caprolactam copolymer

(6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and

(7) a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula $R^1-CH=CH-R^2$ and wherein Monomer B is of the formula $R^3-C(R^1)=C(R^2)-R^4$,

wherein R^1 and R^2 are independently selected from hydrogen; hydroxy; halogen; carboxy; sulfo; phenyl; phenoxy; C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} aminoalkyl, C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine; C_{1-6} alkylphenyl; amino and C_{1-6} alkylamino, R^3 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given hereinbefore for R^1 , R^2 or R^3 , with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound.

103. The composition according to claim 102 wherein the polymer is (1).

104. The composition according to claim 103 wherein p is 0.

105. The composition according to claims 103 or 104 wherein y is 1.

106. The composition according to claims 103 to 105 wherein x is 2.

107. The composition according to claims 103 to 106 wherein each of R_3 is methyl.

108. The composition according to claim 102 wherein the polymer is (2).

109. The composition according to claim 102 wherein the polymer is (3).

5 110. The composition according to claim 109 wherein the ammonium derivative is dialkylamino alkyl methacrylate.

111. The composition according to claim 102 wherein the polymer is (4).

10 112. The composition according to claim 102 wherein the polymer is (5).

113. The composition according to claim 102 wherein the polymer is (6).

15 114. The composition according to claim 113 wherein the polymer is a vinyl pyrrolidone/acrylic acid copolymer.

115. The composition according to claim 102 wherein the polymer is (7).

20 116. The composition according to claim 115 wherein Monomer A is selected from C₁₋₆ alkyl vinyl ethers and C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.

117. The composition according to claim 116 wherein Monomer A is C₁₋₆ alkyl vinyl ethers.

25 118. The composition according to claim 116 wherein the C₁₋₆ alkyl vinyl ethers are selected from vinyl methyl ether, vinyl ethyl ether, vinyl propyl ether, vinyl isopropyl ether, vinyl n-butyl ether, vinyl isobutyl ether, vinyl n-amyl ether, and vinyl n-hexyl.

119. The composition according to claim 116 wherein Monomer A is selected from C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.

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120. The composition according to claim 119 wherein the C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers selected from methoxyethyl vinyl ether, ethoxyethyl vinyl ether, propoxyethyl vinyl ether, butoxyethyl vinyl ether, methoxyethoxyethyl vinyl ether, ethoxyethoxyethyl vinyl ether, and butoxyethoxyethyl vinyl ether.

121. The composition according to claim 116 wherein Monomer B is maleic acid or derivative thereof.

5 122. The composition according to claim 121 wherein the copolymer is vinyl methyl ether/maleic acid alkyl half ester wherein alkyl is C₁₋₆ alkyl.

123. The composition according to any one of claims 109 to 122 wherein the at least one anionic surfactant is selected from alcohol sulfates and sulfonates, alcohol phosphates and
10 phosphonates, alkyl ester sulfates, alkyl diphenyl ether sulfonates, alkyl sulfates, alkyl ether sulfates, sulfate esters of an alkylphenoxy polyoxyethylene ethanol, alkyl monoglyceride sulfates, alkyl sulfonates, alkyl ether sulfates, alpha-olefin sulfonates, beta-alkoxy alkane sulfonates, alkyl ether sulfates, ethoxylated alkyl sulfonates, alkylaryl sulfonates, alkylaryl
15 sulfates, alkyl monoglyceride sulfates, alkyl carboxylates, alkyl ether carboxylates, alkyl alkoxy carboxylates having 1 to 5 moles of ethylene oxide, alkylpolyglycolethersulfates (containing up to 10 moles of ethylene oxide), sulfosuccinates, octoxynol or nonoxynol phosphates, taurates, fatty taurides, fatty acid amide polyoxyethylene sulfates, acyl glycerol sulfates, fatty oleyl glycerol sulfates, alkyl phenol ethylene oxide ether sulfates, paraffin
20 sulfonates, alkyl phosphates, isethionates, N-acyl taurates, alkyl succinamates and sulfosuccinates, alkylpolysaccharide sulfates, alkylpolyglucoside sulfates, alkyl polyethoxy carboxylates, and sarcosinates or mixtures thereof.

124. The composition according to any one of claims 109 to 123 wherein the anionic surfactant is selected from alcohol sulfates and sulfonates, alkyl sulfates, alkylaryl sulfates, alkyl
25 sulfonates, and alkylaryl sulfonates.

125. The composition according to any one of claims 109 to 124, wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 6:2:1

30 126. The composition according to any one of claims 109 to 125 wherein the ratio (a):(b):(c) ranges from about 1:1:1 to about 4:2:1.

127. The composition according to any one of claims 109 to 126 wherein the ratio of (a):(b):(c) ranges from about 1:1:1 to about 2:2:1.

128. The composition according to any one of claims 109 to 127 wherein at least one organic solvent is present.

5 129. A composition comprising

(a) at least one organic acid;

(c) at least one polymer capable of forming a complex with (a) at least one of organic acid;

10 (d) optionally, at least one organic solvent;

(e) optionally, at least one propellant;

(f) water; and

optionally, one or more further conventional constituents such as: pH buffering agents, perfumes, perfume carriers, colorants, hydrotropes, viscosity modifying agents, further
15 germicides, fungicides, anti-oxidants, and anti-corrosion agents.

130. The composition according to claim 129 wherein the at least one organic acid is selected from a compound having the formula:



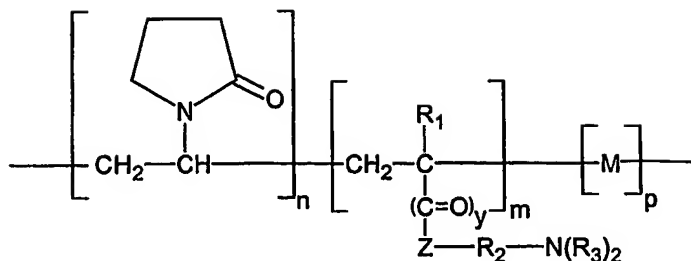
20 wherein R is hydrogen, lower alkyl; substituted lower alkyl; hydroxy lower alkyl; carboxy lower alkyl; carboxy, hydroxy lower alkyl; carboxy, halo lower alkyl; carboxy, dihydroxy lower alkyl; dicarboxy, hydroxy lower alkyl; carboxy lower alkenyl; dicarboxy lower alkenyl; phenyl; substituted phenyl and mixtures thereof, wherein substituted lower alkyl is substituted by one or more groups consisting of halogen, hydroxyl, amino, thiol, nitro, and cyano.

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131. The composition according to claim 130 wherein the organic acid is selected from the group citric, malic, succinic, lactic, glycolic, fumaric, tartaric, and formic acids and mixtures thereof.

30 132. The composition according to any one of claims 129 to 131 wherein the at least one polymer is selected from the group

(1) polymer having the formula



in which n represents from 20 to 99 and preferably from 40 to 90 mol %, m represents from 1 to 80 and preferably from 5 to 40 mol %; p represents 0 to 50 mol, ($n+m+p=100$); R_1 represents H or CH_3 ; y represents 0 or 1; Z is selected from O or NH; R_2 represents C_xH_{2x} where x is 2 to 18; each of R_3 independently represents hydrogen or C_1 to C_4 alkyl; and M is a vinyl or vinylidene monomer copolymerisable with vinyl pyrrolidone other than the monomer identified in [] $_m$,

- (2) vinylpyrrolidone/vinyl acetate copolymer,
- (3) vinylpyrrolidone/vinyl caprolactam/ammonium derivative terpolymer, where the ammonium derivative monomer has 6 to 12 carbon atoms and is selected from dialkylamino alkyl methacrylamides, dialkylamino alkyl methacrylate, and dialkylamino alkyl acrylate,
- (4) poly (vinyl pyrrolidone);
- (5) vinyl pyrrolidone/vinyl caprolactam copolymer
- (6) vinyl pyrrolidone/acrylic acid (and its esters) or methacrylic acid (and its esters) copolymer; and
- (7) a copolymer of Monomer A and Monomer B wherein Monomer A is of the formula $\text{R}^1\text{—CH=CH—R}^2$ and wherein Monomer B is of the formula $\text{R}^3\text{—C(R}^1\text{)=C(R}^2\text{)—R}^4$, wherein R^1 and R^2 are independently selected from hydrogen; hydroxy; halogen; carboxy; sulfo; phenyl; phenoxy; C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-6} aminoalkyl, C_{1-6} haloalkyl wherein the halogen is selected from chlorine, bromine, iodine, and fluorine; C_{1-6} alkylphenyl; amino and C_{1-6} alkylamino, R^3 is an acidic group or a derivative thereof and R^4 is a group selected from any of the definitions given hereinbefore for R^1 , R^2 or R^3 , with the proviso that neither monomer A nor monomer B is an ester having a quaternary ammonium compound.

133. The composition according to claim 132 wherein the polymer is (1).
134. The composition according to claim 133 wherein p is 0.
- 5 135. The composition according to claims 133 or 134 wherein y is 1.
136. The composition according to claims 133 to 135 wherein x is 2.
- 10 137. The composition according to claims 133 to 136 wherein each of R_3 is methyl.
138. The composition according to claim 132 wherein the polymer is (2).
139. The composition according to claim 132 wherein the polymer is (3).
- 15 140. The composition according to claim 139 wherein the ammonium derivative is dialkylamino alkyl methacrylate.
141. The composition according to claim 132 wherein the polymer is (4).
- 20 142. The composition according to claim 132 wherein the polymer is (5).
143. The composition according to claim 132 wherein the polymer is (6).
- 25 144. The composition according to claim 143 wherein the polymer is a vinyl pyrrolidone/acrylic acid copolymer.
145. The composition according to claim 132 wherein the polymer is (7).
- 30 146. The composition according to claim 145 wherein Monomer A is selected from C_{1-6} alkyl vinyl ethers and C_{1-6} alkoxy C_{1-6} alkyl vinyl ethers.
147. The composition according to claim 146 wherein Monomer A is C_{1-6} alkyl vinyl ethers.

148. The composition according to claim 147 wherein the C₁₋₆ alkyl vinyl ethers are selected from vinyl methyl ether, vinyl ethyl ether, vinyl propyl ether, vinyl isopropyl ether, vinyl n-butyl ether, vinyl isobutyl ether, vinyl n-amyl ether, and vinyl n-hexyl.

5 149. The composition according to claim 146 wherein Monomer A is selected from C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers.

150. The composition according to claim 149 wherein the C₁₋₆ alkoxy C₁₋₆ alkyl vinyl ethers selected from methoxyethyl vinyl ether, ethoxyethyl vinyl ether, propoxyethyl vinyl ether,
10 butoxyethyl vinyl ether, methoxyethoxyethyl vinyl ether, ethoxyethoxyethyl vinyl ether, and butoxyethoxyethyl vinyl ether.

151. The composition according to claim 147 wherein Monomer B is maleic acid or derivative thereof.

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152. The composition according to claim 141 wherein the copolymer is vinyl methyl ether/maleic acid alkyl half ester wherein alkyl is C₁₋₆ alkyl.

153. The composition according to any one of claims 129 to 152 wherein the (a) organic acid
20 is present in an amount of from about 0.01 to about 10%wt.

154. The composition according to claim 153 wherein the (a) organic acid is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.

25 155. The composition according to any one of claims 129 to 152 wherein (c) polymer is present in an amount of from about 0.01 to about 10%wt.

156. The composition according to claim 155 wherein (c) polymer is present in an amount of from about 0.01 to about 5%wt, more preferably from about 0.5 to about 2%wt.

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157. The compositions substantially described with reference to Examples 2 to 19.

158. The composition according to any one of claims 1 to 157 which provide residual antimicrobial activity to a surface to which the composition is applied.

159. The composition according to any one of claims 1 to 157 wherein the residual antimicrobial activity is against viruses.

5 160. The composition according to any one of claims 1 to 157 which is used personal care products selected from antiseptics, hand soaps and lotions.

161. The composition according to any one of claims 1 to 157 which is used in laundry or fabric treatment product.

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162. The composition according to any one of claims 1 to 157 which is used in dishwashing products, including rinse aids.

15 163. The composition according to any one of claims 1 to 157 wherein the composition is incorporated into a wipe.

164. The composition according to any one of claims 1 to 157 wherein the composition is incorporated into a hard surface disinfectant and/or cleaning product.

20 165. A process for treating a surface which comprises the step of providing the composition according to any of claims 1 to 157, and applying an effective amount of the composition to the surface requiring such treatment.

25 166. The process of claim 165 wherein the surface is a hard surface, a fabric, or skin.